
INTRODUCTION

.These two training systems provide functioning refrigeration circuits utilising commercial controls and components. They provide realistic training in setting up, operating and fault finding in refrigeration Systems. The systems operate with R134a, an environmentally acceptable refrigerant.

The P5720 Domestic Refrigeration Trainer provides a standard refrigeration piston compressor, condenser, and an insulated chamber to provide a refrigeration load. A range of different expansion devices are provided. Fault initiation switches are included.

The P5721 Commercial Refrigeration Trainer provides additional refrigerant capability, with both chiller and freezer chambers. A defrosting heater is provided driven by hot refrigerant gas. Fault initiation is also included.

EXPERIMENTAL CAPABILITY

P5720 Domestic Refrigeration Trainer can be used as an introduction to the basics of refrigeration circuits including safety and operation. Fault finding can be initiated by operating switches conveniently built into the electrical circuits with the student assessing the consequences, and building up a diagnosis capability.

P5721 Commercial Refrigeration Trainer principle is similar to the P5720 but covers a range of refrigeration faults..

DESCRIPTION

P5720 Domestic Refrigeration Trainer

This is a bench top mounted refrigeration system to provide students with experience in the safety, operation and faults of a domestic refrigeration system.

A mimic of the refrigerant circuit is provided on the front panel showing the circuit comprising of compressor, condenser and evaporator within an insulated chamber. Expansion of the refrigerant is possible through a number of different devices such as a regulating valves and capillary tubes of various lengths. Pressure is displayed at two points on the circuit.

Faults can be initiated by switches set in the control and monitoring circuits.

P5721 Commercial Refrigeration Trainer

The unit is similar to the P5720, being a bench top mounted unit, and with a mimic of the refrigeration circuit on the front panel.

However the circuit is considerably more complicated including one chamber for chilling and one chamber for frozen produce. The circuits are arranged within the evaporators to allow for hot gas defrosting.

Faults that can be simulated include blockage of pipes, filters, failure of expansion devices, thermostats etc.

NB More detailed description of P5721 IS SUPPLIED OVERLEAF

P5721 COMMERCIAL REFRIGERATION TRAINER

General features:

- ◆ The training system provides functioning refrigeration circuits utilizing commercial control & components. It provides realistic training in setting up, operating & fault finding in refrigeration systems. The system operates with R404a, one of the latest environmentally acceptable refrigerants
- ◆ The refrigeration trainer provides additional refrigerant capability, with both chiller & freezer chamber. A defrosting heater is provided driven by hot refrigerant gas. Fault initiation is also included
- ◆ The refrigeration trainer is mounted on a wheeled stand due to its weight but at bench top height to provide students with experience in the safety, operation & faults of a refrigeration system
- ◆ A mimic of the refrigerant circuit is provided on the front panel showing the circuit comprising of compressor, condenser & evaporator with an insulated chamber. Expansion of refrigerant is possible through a number of different devices such as a regulating valves & capillary tubes of various lengths. Pressure is displayed at two points on the circuit
- ◆ Faults can be initiated by switches set in the control & monitoring circuits
- ◆ Faults that can be simulated include blockage of pipes filter, failure of expansion devices, thermostats .. etc
- ◆ Faults are selected by depressing switches & by use of the hand valves. Fault are cleared by releasing the depressed switches & by opening the hand valves. Adjustment faults may be introduced by setting incorrect values on the Pressure stats on the front panel

Experimental capabilities

- ◆ The refrigeration trainer can be used as an introduction to the basics of refrigeration circuits including safety & operating switches conveniently built into the electrical circuits with the student assessing the consequences, & building up a diagnosis capability
- ◆ It also covers a range of refrigeration faults include fault on the compressor , fault on the oil separator, fault on the constant pressure regulator, fault initiated by blocked freezer evaporator or liquid line or by restricted freezer liquid line or by blocked drier or by blocked condenser air path or by compressor short cycling, faulty check valve, fault on freezer TEV, refrigerator TEV.. etc
- ◆ Accessories: operation/maintenance/instruction manual with all wiring and controls, suggested laboratory/instruction/data sheets
- ◆ Warranty: at least one year warranty after delivery of equipment
- ◆ Operation & maintenance manual with all electrical wiring & control diagrams, suggested laboratory/instruction/data sheets for carrying out the above mentioned experimental capacities are supplied.